

Claims

What is claimed is:

- 1 1. A method of translating blocked data transferred from a program
2 executing on one of a plurality of computer systems to another of the
3 plurality of computer systems, wherein:
4 the plurality of computer systems comprises:
 - 5 a first computer system containing a first program
6 communicating through an API with a first interface
7 system, and
 - 8 a second computer system containing a second interface system
9 for communicating with the first interface system;
- 10 the first computer system and the second computer system are
11 heterogeneous computer systems coupled together over a
12 communications link;
13 said method comprising:
 - 14 A) opening a first session from the first program via the API through
15 the first interface system to the second interface system;
 - 16 B) specifying a first translation for records transmitted over the first
17 session;
 - 18 C) blocking a first plurality of records into a first block of records;
 - 19 D) transmitting the first block of records over the first session from a
20 first one of the plurality of computer systems to a second one of
21 the plurality of computer systems;
 - 22 E) unblocking the first block of records into the first plurality of
23 records on the second one of the plurality of computer systems;
24 and
 - 25 F) translating each of the first plurality of records in accordance with
26 the translation specified in step (B).
- 1 2. The method in claim 1 wherein:
2 the translating in step (F) is performed in the first interface system.

- 1 3. The method in claim 1 wherein:
2 the translating in step (F) is performed in the second interface system.
- 1 4. The method in claim 1 wherein:
2 each of the first plurality of records comprises a plurality of fields;
3 one of the plurality of fields is an alphanumeric field; and
4 the translating in step (F) comprises:
5 translating each character in the one of the plurality of fields
6 from a first character format to a second character
7 format.
- 1 5. The method in claim 1 wherein:
2 each of the first plurality of records comprises a plurality of fields;
3 one of the plurality of fields is an integer field; and
4 the translating in step (F) for each of the first plurality of records
5 comprises:
6 1) translating an integer in the one of the plurality of fields
7 from a first integer format to a second integer format.
- 1 6. The method in claim 5 wherein:
2 the translating in substep (1) of step (F) includes changing from a first
3 endian format to a second endian format.
- 1 7. The method in claim 1 wherein:
2 each of the first plurality of records comprises a plurality of fields;
3 one of the plurality of fields is an floating point field;
4 the translating in step (F) for each of the first plurality of records
5 comprises:
6 1) translating floating point numbers in the one of the
7 plurality of fields from a first floating point format to a
8 second floating point format.
- 1 8. The method in claim 1 wherein:
2 the specifying in step (B) utilizes a file containing a record
3 description.

- 1 9. The method in claim 1 wherein:
2 the specifying in step (B) utilizes a memory area containing a record
3 description.
- 1 10. The method in claim 1 which further comprises:
2 G) opening a second session from the first program via the API
3 through the first interface system to a third interface system in a
4 third computer system coupled to the first computer system;
5 H) specifying a second translation for records transmitted over the
6 second session;
7 I) blocking a second plurality of records into a second block of
8 records;
9 J) transmitting the second block of records over the second session
10 from a first one of the plurality of computer systems to a third
11 one of the plurality of computer systems;
12 K) unblocking the second block of records into the second plurality of
13 records on the third one of the plurality of computer systems;
14 and
15 L) translating each of the second plurality of records in accordance
16 with the translation specified in step (H).

- 1 11. A data processing system having software stored in a set of Computer
2 Software Storage Media for translating blocked data transferred from
3 a program executing on one of a plurality of computer systems to
4 another of the plurality of computer systems, wherein:
5 the plurality of computer systems comprises:
6 a first computer system containing a first program
7 communicating through an API with a first interface
8 system, and
9 a second computer system containing a second interface system
10 for communicating with the first interface system;
11 the first computer system and the second computer system are
12 heterogeneous computer systems coupled together over a
13 communications link;
14 said software comprising:
15 A) a set of computer instructions for opening a first session from the
16 first program via the API through the first interface system to
17 the second interface system;
18 B) a set of computer instructions for specifying a first translation for
19 records transmitted over the first session;
20 C) a set of computer instructions for blocking a first plurality of
21 records into a first block of records;
22 D) a set of computer instructions for transmitting the first block of
23 records over the first session from a first one of the plurality of
24 computer systems to a second one of the plurality of computer
25 systems;
26 E) a set of computer instructions for unblocking the first block of
27 records into the first plurality of records on the second one of
28 the plurality of computer systems; and
29 F) a set of computer instructions for translating each of the first
30 plurality of records in accordance with the translation specified
31 in set (B).
- 1 12. The software in claim 11 wherein:
2 the translating in set (F) is performed in the first interface system.

- 1 13. The software in claim 11 wherein:
2 the translating in set (F) is performed in the second interface system.
- 1 14. The software in claim 11 wherein:
2 each of the first plurality of records comprises a plurality of fields;
3 one of the plurality of fields is an alphanumeric field; and
4 the translating in set (F) comprises:
5 translating each character in the one of the plurality of fields
6 from a first character format to a second character
7 format.
- 1 15. The software in claim 11 wherein:
2 each of the first plurality of records comprises a plurality of fields;
3 one of the plurality of fields is an integer field; and
4 the translating in set (F) for each of the first plurality of records
5 comprises:
6 1) a set of computer instructions for translating an integer in
7 the one of the plurality of fields from a first integer
8 format to a second integer format.
- 1 16. The software in claim 15 wherein:
2 the translating in subset (1) of set (F) includes changing from a first
3 endian format to a second endian format.
- 1 17. The software in claim 11 wherein:
2 each of the first plurality of records comprises a plurality of fields;
3 one of the plurality of fields is an floating point field;
4 the translating in set (F) for each of the first plurality of records
5 comprises:
6 1) a set of computer instructions for translating floating
7 point numbers in the one of the plurality of fields from a
8 first floating point format to a second floating point
9 format.

- 1 18. The software in claim 11 wherein:
2 the specifying in set (B) utilizes a file containing a record description.
- 1 19. The software in claim 11 wherein:
2 the specifying in set (B) utilizes a memory area containing a record
3 description.
- 1 20. The software in claim 11 which further comprises:
2 G) a set of computer instructions for opening a second session from
3 the first program via the API through the first interface system
4 to a third interface system in a third computer system coupled
5 to the first computer system;
6 H) a set of computer instructions for specifying a second translation
7 for records transmitted over the second session;
8 I) a set of computer instructions for blocking a second plurality of
9 records into a second block of records;
10 J) a set of computer instructions for transmitting the second block of
11 records over the second session from a first one of the plurality
12 of computer systems to a third one of the plurality of computer
13 systems;
14 K) a set of computer instructions for unblocking the second block of
15 records into the second plurality of records on the third one of
16 the plurality of computer systems; and
17 L) a set of computer instructions for translating each of the second
18 plurality of records in accordance with the translation specified
19 in set (H).

- 1 21. A computer readable Non-Volatile Storage Medium encoded with
2 software for translating blocked data transferred from a program
3 executing on one of a plurality of computer systems to another of the
4 plurality of computer systems, wherein:
5 the plurality of computer systems comprises:
6 a first computer system containing a first program
7 communicating through an API with a first interface
8 system, and
9 a second computer system containing a second interface system
10 for communicating with the first interface system;
11 the first computer system and the second computer system are
12 heterogeneous computer systems coupled together over a
13 communications link;
14 said software comprising:
15 A) a set of computer instructions for opening a first session from the
16 first program via the API through the first interface system to
17 the second interface system;
18 B) a set of computer instructions for specifying a first translation for
19 records transmitted over the first session;
20 C) a set of computer instructions for blocking a first plurality of
21 records into a first block of records;
22 D) a set of computer instructions for transmitting the first block of
23 records over the first session from a first one of the plurality of
24 computer systems to a second one of the plurality of computer
25 systems;
26 E) a set of computer instructions for unblocking the first block of
27 records into the first plurality of records on the second one of
28 the plurality of computer systems; and
29 F) a set of computer instructions for translating each of the first
30 plurality of records in accordance with the translation specified
31 in set (B).

- 1 22. A data processing system having software stored in a set of Computer
2 Software Storage Media for translating blocked data transferred from
3 a program executing on one of a plurality of computer systems to
4 another of the plurality of computer systems, wherein:
5 the plurality of computer systems comprises:
6 a first computer system containing a first program
7 communicating through an API with a first interface
8 system, and
9 a second computer system containing a second interface system
10 for communicating with the first interface system;
11 the first computer system and the second computer system are
12 heterogeneous computer systems coupled together over a
13 communications link;
14 said software comprising:
15 A) means for opening a first session from the first program via the
16 API through the first interface system to the second interface
17 system;
18 B) means for specifying a first translation for records transmitted over
19 the first session;
20 C) means for blocking a first plurality of records into a first block of
21 records;
22 D) means for transmitting the first block of records over the first
23 session from a first one of the plurality of computer systems to
24 a second one of the plurality of computer systems;
25 E) means for unblocking the first block of records into the first
26 plurality of records on the second one of the plurality of
27 computer systems; and
28 F) means for translating each of the first plurality of records in
29 accordance with the translation specified in set (B).